

American Bee Journal



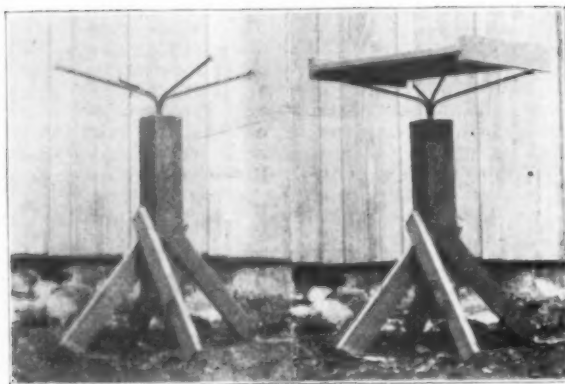
WEEKLY—\$1.00 A YEAR.

Published by GEORGE W. YORK & CO., 334 Dearborn Street.

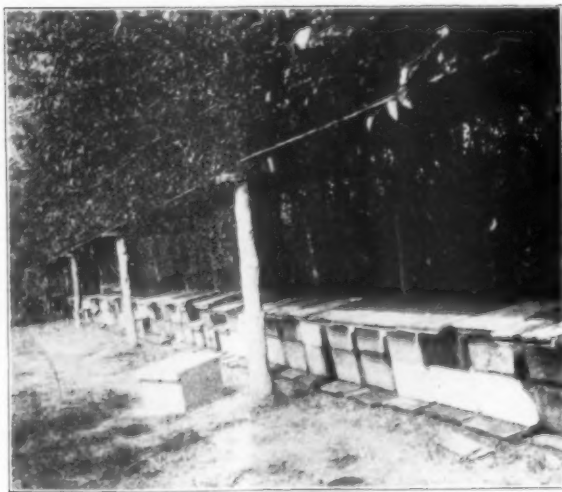
45th Year.

CHICAGO, ILL., APRIL 13, 1905.

No. 15.



Conrads' Stand for Holding Supers, Covers, Etc.



Apiary of M. W. Harrington, of Iowa Co., Iowa.
(See page 277.)

Every Bee-Keeper

Or Prospective Bee-Keeper

should read *GLEANINGS IN BEE CULTURE*. It gives you the latest in the apicultural world. If you have honey and wax for sale it tells you the market prices. If you have troublesome questions to solve, it helps you. The very best bee-keepers write for it. The following noted writers contribute regularly:

C. C. MILLER,
Of Illinois.

G. M. DOOLITTLE,
Of New York.

J. A. GREEN,
Of Colorado.

LOUIS SCHOLL,
Of Texas.

PROF. A. J. COOK,
Of California.

Semi-monthly. Over a thousand pages annually. Illustrated fully with the finest half-tones, printed on the best paper. It has the largest circulation of any bee-paper in the world. \$1.00 a year. Sample copy free.



TRIAL OFFER!

**Gleanings in Bee Culture,
6 months, 25c.**

We are certain that any one interested in bees would be greatly benefited by becoming a subscriber to *GLEANINGS IN BEE CULTURE*. We want you to give it a trial. After you have received a few numbers we are sure you will become a permanent subscriber. We therefore make a special trial offer of 6 months for 25c. Fill in your name in space below, remit 25 cents, and the paper will begin at once.

XXXXXXXXXXXXXXXXXXXXXXXXXXXX

Enclosed find 25 cents, for which
send me *Gleanings in Bee Culture*
6 months.

NAME

P. O.

COUNTY

STATE

Root's Goods in Chicago.

For the saving of freight for our western trade, as well as to give much quicker delivery, we opened a branch office in Chicago, Oct. 1, 1903. The following taken from our catalog of last year, explains the transfer then made:

The business for many years conducted by George W. York & Co., at 144 E. Erie Street, as agent for The A. I. Root Company's supplies, is this day transferred to The A. I. Root Company, to be conducted as a branch office. Please note change of name to avoid confusion in our work. THE A. I. ROOT CO.
October 1, 1903.

To Our Customers and Friends:

In transferring back to The A. I. Root Company the bee-supply business, which we took over from them some years ago, we do so with regret, as we have labored hard to build up a large and honorable trade in bee-appliances, and value beyond expression the valuable patronage accorded us during the years.

Low Freight and Quick Delivery.

A glance at any railroad map will show the superiority of Chicago as a shipping-point. Because of the great number of railroad and steamboat lines centering in Chicago, and the large stock of goods we carry, we can give you the best of service. This office is in constant touch with the factory and home office, and in many cases can give your order quicker attention and earlier shipment than the factory, to say nothing about the saving in time and transit and lower transportation charges.

Wholesale and Retail.

We are prepared to furnish goods at wholesale and retail, the same as the home office.

Terms.

Our terms are cash with the order. We pay cash for material, and pay our

We trust the same will be continued to our successors in the business.

GEORGE W. YORK & CO.
Chicago, Ill., Oct. 1, 1903.

The conveniences offered by the branch office were evidently appreciated by the bee-keepers of Illinois, Wisconsin, and other States beyond, for the business done by the branch was much beyond our expectations. During the rush season—April, May and June—orders came in so fast that, in spite of frequent orders to the factory for another car of goods, the stock ran low, and some delays and annoyances thereby were caused. Some little confusion because of change of name and manner of conducting the business (from agency to branch office), but these have all been overcome. We are better than ever prepared to handle your business carefully and promptly, and solicit your patronage.

helpers cash every week for their work; therefore we must have cash in advance for the goods furnished. Do not ask for credit.

Beeswax Wanted.

We are in the market for good beeswax the entire year, and pay the same prices as quoted by our home office in each issue of *GLEANINGS IN BEE CULTURE*. Send your wax direct to us for cash or in exchange for supplies.

Extracted Honey.

In the course of a year we use large quantities of extracted honey, and are pleased to get sample and prices from parties who have honey to exchange for supplies. We are also prepared at all times to furnish first-class honey to any one who is in need of same, either bee-keepers who have a demand for more than they can furnish, or from dealers. Get our prices before you place your orders elsewhere.

DANZENBAKER HIVE.

"Facts About Bees", a 64-page book written by Mr. F. Danzenbaker, giving a complete description of his famous hive and directions for using. Full of valuable information. Sent on receipt of a 2-cent stamp to pay the postage. **Send for it.**

The Danzenbaker Hive

THE COMB-HONEY HIVE.
Three Points of Excellence:

QUALITY

You can produce better-looking honey.

QUANTITY

You can produce more of it.

PRICE

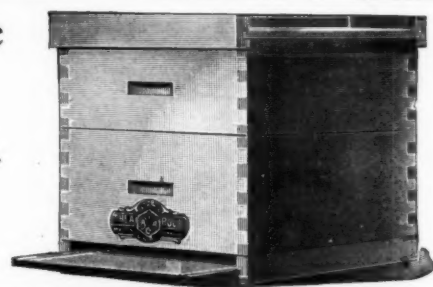
You can get more per pound for it.

SPECIAL NOTICE.

The great popularity of the Danzenbaker hive has brought the shallow brood-frame and the tall plain sections into prominence. It must be remembered that no other hive contains the essential features of the Danzenbaker. The success of this system depends on having everything just right, so you should place your order for the Danzenbaker hive with our office, or any of our branches or regular agents.

Address all Orders, Remittances, Inquiries, etc., to

THE A. I. ROOT CO., 144 East Erie Street, Chicago, Ill.



ESTABLISHED IN 1861 AMERICAN THE OLDEST BEE-PAPER IN AMERICA BEE JOURNAL

Entered at the Post-Office at Chicago as Second-Class Mail-Matter.

Published Weekly at \$1.00 a Year by George W. York & Co., 334 Dearborn St.

GEORGE W. YORK, Editor.

CHICAGO, ILL., APRIL 13, 1905.

Vol XLV.—No. 15.



Editorial Notes and Comments

The Honey-Producers' League

In last week's issue we devoted much space to this new organization for bee-keepers, which, it is hoped, will prove to be a valuable one. As its Constitution says, its objects are to create a larger demand for honey through advertising, and also to counteract the evil influence of misrepresentations of honey by correcting them.

It was stated that when there is \$5000 in the League's treasury, the advertising would begin. Last week we reported already over \$1000 on hand. And this week we have more to report. It is hoped that by May 1 the full initial amount will be in hand, so that operations may be commenced.

To show how The Honey-Producers' League is being received, we give herewith a few extracts from letters received by its Manager:

The plan of the League meets our entire endorsement.—THE KRETCHMER MFG. CO.

We must say that such a thing has long been needed, and we trust it will do a great deal of good.—JOHN DOLL & SON.

I believe the project is a good one; at least it is worth giving a good trial.—E. WHITCOMB.

We think The Honey-Producers' League a commendable undertaking, and should be glad to lend what assistance we can.—W. T. FALCONER MFG. CO.

I think The Honey-Producers' League is a move in the right direction, and its work, to be most helpful to honey-producers this year, should begin at once.—(MRS.) CLARA WEST EVANS.

The Honey-Producers' League Prospectus and Constitution just at hand. I have shown it to Mr. Clark, and he, with myself, think we would better throw our lot in with it.—G. M. DOOLITTLE.

We might give more such expressions, but the fact that people are putting in their dollars is proof enough that they believe thoroughly in the proposed work of the League, and want to put "their shoulders to the wheel" and thus help move things. It ought to have 1000 members by May 1. Like every other organization, The Honey-Producers' League has a few objections to meet. But such should not discourage any one.

In the first place, let us say that none of its originators for one moment thought that it was to take the place of the National Bee-Keepers' Association. The National has done a great work, and still has much to do. It is a social organization also, while the League is all for business.

The Manager has received a very few letters saying something like this: "When the League gets ready to advertise, let us know, and we will send in our dues." Or, "When the League has nearly the \$5000 to start advertising with, I will send in my annual dues." But we do not see why some should pay their dues right away and others be waited on. Everybody should pay at once, so that the necessary \$5000 will be on hand quickly. Surely, if some have faith enough in the League to have paid their \$25 or more already, it would seem

that others whose dues will not be more than from \$3 to \$5 should pay promptly also.

It has been suggested that those who do not become members of the League will reap as great benefits as those who join and pay their money. Hardly. They will really suffer from the feeling that they have failed to live up to their duty and privilege. This is a work in which all should co-operate. The expense is not great, but the prospects of good returns are inestimable.

Spring Troubles with Cellared Bees

Spring is especially the time when the cellarer envies the man who need not give a thought to the question of the right time to take out his bees because they have never been taken in. Often there is a painful uncertainty as to whether bees should be taken out or not. If one could only know what is before one in the shape of weather. A bee-keeper in Northern Illinois writes:

"How the seasons do vary. One year we had deep snowbanks still left the last of April. This year we have the appearance of spring fully established in March. For days it has been mild; March 28 the thermometer stood at 75 in the shade, while in the cellar it was 62, with the bees roaring in a distressing manner."

"But why did the man leave his bees in the cellar when it was so warm?" asks a man in the South. That's just the trouble; he doesn't know what is to come, and if he puts his bees out he may have to wince under two weeks of freezing weather. So he thinks,

"Better to suffer the ills we have
Than fly to those we know not of,"

and leave his bees in the cellar till a little more sure warm weather has come to stay. There may be no more severe weather, and there may be a lot of it, and how is he to tell?

It might help matters a little if we could have a decided answer to the question whether or not it is wise toward spring to take bees out for a flight and then return them.

Another Comb-Honey Misrepresentation

In the New York Tribune for Feb. 19, it was stated that "honey is also adulterated in the comb, the comb being made in part of paraffin and saturated with a mixture of glucose and syrups." A protest was sent in by the American Bee Journal, and no doubt by a number of others. The Tribune of March 5 gives a letter from Editor Root, of Gleanings, and a reply thereto, the whole occupying about a column, but in that column there is no hint of any modification of the statement—only pains taken to justify it.

It is not likely that so able a periodical as the New York Tribune is desirous to mislead or misstate, and the probability is that when the statement was made it was believed to be correct. Having been made, it is only human nature to give full weight—and a little undue weight—to anything found to favor such statement. After giving proofs that it probably believes are satisfactory, it concludes by saying:

In offering his reward of \$1000, Mr. Root specifies in his letter that the comb honey must be shown to have been "manufactured out of paraffin by any mechanical process known to science or the arts, filled with glucose, and put on the market as comb honey." Such specifications are of course prohibitive. He demands that a wholly artificial product be brought to him. No one says that comb honey can be completely counterfeited. Adulterations are not wholly spurious. Adulterated olive oil is not all cottonseed oil. It has been shown, however, that honey may be adulterated in the comb with glu-

cose; that combs may be artificially formed by furnishing the bees a foundation; that this foundation may be adulterated, and that paraffin is one of the chief adulterants.

In the reward card which Mr. Root sends out, and which he says in his letter he has "published for the last 15 years," he still further safeguards himself with conditions. The reward is only for one "who will furnish evidence that comb honey has been manufactured, filled with honey and capped by machinery, or who will furnish information of any place where comb honey is manufactured by machinery—in either case the product imitated so closely as not to be told from the genuine."

Comb honey sold "in the frame," of which The Tribune made no mention, is uniformly pure in this country. Nevertheless, honey-makers should appreciate that it can only remain so by constant watchfulness. They should welcome instead of criticise any public discussion of the subject. The art of adulteration is on the increase in this country, and is aided by every new discovery in the sciences. As Dr. Wiley says:

"The true friend of the apiary interests of the country is not he who shuts his eyes to patent adulterations, but rather he who recognizes facts, even unpleasant, and who, having seen the enormity of the extent of honey-adulteration, supports the labors of those who seek to detect and prevent it."

Bee-keepers as a class are an intelligent set of men (and women), and as such they are not likely to close their eyes to facts, unpleasant though the facts may be; but they do desire that what are given as facts shall not directly or by inference give impressions that are false. One trouble in the case is a lack of thorough knowledge on the subject. The proof of that lack lies in the phraseology used in some parts of the discussion, and also in the arguments used. In all fairness it should be said that The Tribune has been no doubt misled by statements made by those supposed to be good authorities, which statements would probably not have been made just as they were by any fully familiar with the entire facts.

Even with this admission it is a little difficult to admit the relevancy of a passage like the following:

That the honey-comb, as well as the contents of its comb, may be more or less artificial is a well established fact. Dr. Wiley speaks of 15 patents that have been issued for the manufacture of artificial comb and comb foundation. One is described as follows: "The comb is made complete of a web of paper, cloth or suitable material, which, after moulding, is saturated with melted wax. The excess of coating is thrown off by a centrifugal machine. The advantage arising from my invention, says its author, 'is that combs constructed accordingly can be filled and emptied repeatedly without breaking, the honey being extracted by means of a centrifugal machine, or as commonly done with other honey-combs when it is desired to use them a second time.'"

Another patented method, according to the inventor, will produce a comb in every respect resembling the natural comb built by bees. "This comb," says the inventor, "may be placed in the hive and will be used by the bees, thus saving the insects the labor of building combs and causing them to spend the time otherwise appropriated to this work in the gathering and storing of honey."

It is in these comb foundations, these artificial layers of wax, which some apiarists place in the center of the frame for the bees to build on, that opportunities are offered for adulteration.

Now what has that to do with the case in hand? Supposing its relevancy, what about its reasonableness? Imagine "a web of paper or cloth" moulded in the form of a complete comb! Pretty thin cloth would be needed to be no thicker than the thin cell-walls of a honey-comb. And how could it possibly be so molded? Would there not be some danger of tearing the cloth before it could be stretched or squeezed into the right form? Then when the complete form is moulded, it is to be saturated with melted wax! Can you imagine such a structure being dipped in wax hot enough to saturate it without the collapsing of the cell-walls? And suppose there is no such collapsing from the immersion in hot wax, in what shape would the fabric be when "the excess of coating is thrown off by a centrifugal machine?"

All this sounds very funny to a bee-keeper, but very likely thousands have soberly read it in The Tribune without seeing anything funny about it. Can The Tribune or Dr. Wiley furnish a sample of anything of the kind? The fact that a claim has been made for it is not greatly to the point. A lunatic may conceive any absurdity and claim a patent from the patent office.

The second patented method produces "a comb in every respect resembling the natural comb built by the bees"—note well, "according to the inventor." It is safe to say there would be no such resemblance "according to" Dr. Wiley or "according to" the editor of The Tribune. Equally safe to say that neither of them have ever seen anything of the kind, nor any one else.

Prof. M. A. Scovell is reported as saying: "No. 103, labeled 'Choice Comb Honey,' is another instance of the sale of comb honey which is a mechanical mixture of the comb with glucose." That probably has reference to honey in glass, a piece of comb honey being

put in and the jar then filled with glucose. Several other cases are reported that seem to be of the same kind. That sort of fraud is well known, but what has that to do with adulterated comb honey? So far as has ever yet been reported, the piece of honey put in is genuine comb honey, the only fraud in the case being the glucose that is poured around it.

Some pains is taken to prove that beeswax is adulterated, a thing well known, but, "according to Dr. Wiley, no comb foundations have been obtained by his men in the United States which were found to be adulterated, but he publishes a letter from a Canadian chemist which shows that it can be done." It doesn't need a letter from a Canadian chemist to show that foundation may be made of adulterated wax, any more than it needs a foreign letter to show that sugar and sand may be mixed, but it is a compliment to United States manufacturers of foundation that Prof. Wiley has not found that they have been guilty of adulteration.

The passage that has the most direct bearing on the case comes earlier in the editorial, and is as follows:

When Mr. Root said that this statement "is absolutely untrue," he was no doubt unaware that it was founded on various government reports. That some honey is adulterated in the comb is a fact stated in Part 8 of Bulletin No. 13, issued by the Department of Agriculture, Division of Chemistry, Feb. 23, 1892. As a result of a thorough analysis Dr. H. W. Wiley, chief chemist of the department, in that report said: "Many samples of comb honey containing only glucose have come under my observation, but in all these cases the combs, presumably after the separation of the honey by centrifugal machine, had been placed in glass bottles and the glucose then added. I have never yet found a sample of comb honey, sold in the frame, which was artificial, except in the use of comb foundation."

In The Tribune's article no mention at all was made of comb honey sold "in the frame." The exact words used were, "honey is also adulterated in the comb," which is accomplished, as Dr. Wiley explains, by expelling the honey from the cells by means of whirling it about at a high rate of speed, and then placing the empty comb in bottles where the glucose is added.

The idea of filling an empty comb with glucose by plunging the empty comb in a bottle of glucose makes a bee-keeper gasp. "Presumably." By the same token, "presumably" Dr. Wiley never found a piece of spurious comb honey in a bottle of glucose. "Presumably" it was genuine comb honey surrounded by glucose, or simply a piece of honey-comb immersed in glucose.

Emphasis is laid upon the point that no mention is made of comb honey sold "in the frame." But is it supposable that the genius which could produce a piece of comb honey out of the frame not distinguishable from the genuine would balk at the task of putting it in the frame? And whatever may have been said, or not said in the former article in the editorial before us, the general reader will find ground for believing that spurious comb honey may be found "in the frame," when he reads in a passage already quoted that it is in these artificial combs "which some apiarists place in the center of the frame for the bees to build on that opportunities are offered for adulteration."

Yet suppose that The Tribune knows that all section honey, or as he puts it, that all honey "in the frame" is genuine, when he says "honey is also adulterated in the comb," whatever reservations may be in his own mind, the impression made on the mind of the general reader will be such as to make him conclude that any sample of comb honey may be adulterated.

In the passage quoted, The Tribune, speaking of Mr. Root's \$1000 offer says, "Such specifications are of course prohibitive." In the light of what has been advanced by The Tribune, let us see how much there is prohibitive about them. There is a method which "will produce a comb in every respect resembling the natural comb built by the bees." The material used is not specified, but if such comb can be made of beeswax it can be made wholly of paraffine. Then "placing the empty comb in bottles where the glucose is added," we have the comb honey entirely artificial, complete all but the sealing, and surely The Tribune would not ask Mr. Root to accept as a marketable article a sample of comb honey not capped over. True, it is not "in the frame," but the specifications do not require that it shall be "in the frame." The specifications were meant to be prohibitive, are prohibitive, as is proven by the fact that no one has ever yet been able to lift the reward, but there is nothing unfairly prohibitive in them, as The Tribune will find if it can "deliver the goods."

Among the bee-keeping readers of The Tribune there may be those who will vote the editor lacking in intelligence, and some perhaps will call him dishonest in his statements. There is no proof that he is either. His position is sufficient warrant for the belief that he is a man of exceptional ability and intelligence, sincerely desirous to get at the truth, and perhaps the last man to be willing to do an in-

justice to an honest industry; but with the testimony before him, in a field with which he was not entirely familiar, he no doubt felt warranted in concluding that it was a more or less common thing to find on the market that which was sold for comb honey that was not genuine comb honey at all.

Let him do a little investigating on his own account. Let him make the effort to find a single specimen of comb honey that is not genuine, no matter whether "in the frame" or not—waive that—it ought not to be so very hard for him to secure it if such a thing is to be found at all; and when he has concluded his search he will no doubt be ready to say, "Comb honey, whether sold in the frame or out of the frame, is uniformly pure in this country." If, however, he should succeed in finding a bogus article of comb honey, let him send a sample to this office, and he may rest assured there will be no blinking of the truth, but the facts will be stated in all their glaring unpleasantness.

Aplarian Representation in Australia

Increase of colonies increases a man's voting power in the New South Wales Bee-Farmers' Association, according to the Australian Bee-Bulletin. If he has only one colony he has one vote, and the same if he has 50 colonies, but each additional 50 colonies after the first 50 gives him an additional vote. With 100 colonies he has 2 votes; with 500, 10 votes; and with 1000, 20 votes.



Miscellaneous News & Items

A Bee-Department that Means Something.—Agricultural papers are more or less in the habit of publishing in what purports to be a bee-department, items containing errors that even a novice in bee-keeping instantly detects, raising the question, if bees are of enough importance to demand attention, are they not of enough importance to have some one of practical knowledge about bees to have a supervising care over what is said about them? A pleasing exception is found in the case of "Irrigation," of Denver, Colo., a monthly agricultural journal of high order, beautifully printed and illustrated, which, in its January number, gave a displayed announcement on its title page that with that number began a bee-department to be edited by no less an authority than our old friend, R. C. Aikin. More power to his pencil.

The Apiary of M. W. Harrington, of Iowa Co., Iowa, appears on the first page. When sending the picture he wrote thus:

The hive in front is an observation hive with glass sides, which are covered with wooden shutters as shown in the picture. For convenience in handling and shading I have used the straight rows, more or less crowded, for 25 years. While I think I lose a few more queens by crowding this way, it a good deal more than makes up for loss in the handling, shading, stands, etc. M. W. HARRINGTON.

Conrads' Stand.—On the first page are two views of a stand used by Wald. C. Conrads, of Comal Co., Tex., who describes it and its use as follows:

I send two views of a stand that I use for holding supers, covers, etc., while painting. Any bee-keeper can have one made by a blacksmith. Take 4 iron rods about 15 inches long by $\frac{3}{8}$ thick, and have them welded together about 3 or 4 inches at one end; then bend them apart so that they will be a little wider than the inside dimensions of the supers; then split them at all four corners about $\frac{1}{2}$ inch, and bend these two points at right angles, so that the projections pointing upward will just fit into the inside of the supers or hives, while the projections pointing sidewise will support the supers or hives.

This same stand is very convenient for painting covers or bottom-boards, but if used for this purpose the projections pointing upward should all be filed to one level, so that the covers or bottom-boards may rest on them while being painted.

The rest of the stand is made of wood, and in the middle of the center piece a hole is bored so that the 4 iron arms will fit into it where they are welded together; however, this point should be drawn out a little.

When painting covers or bottom-boards, place always a match or toothpick on each corner, and you will have no trouble with having them stick together; that is, when you stack them away after painting.

It may also be of interest for those using frames end-spaced by staples, to know that it is much more convenient to put in the staples before nailing up the frames. Just keep the V edge of the end-bars toward you when driving in the staples, and you will have them all right when nailing up the frames.

WALD. C. CONRAD.



Contributed Special Articles

How to Rear Early Drones and Queens

BY G. M. DOOLITTLE.

A CORRESPONDENT wishes me to tell through the columns of the American Bee Journal how he can rear early queens before the drones from his neighbors' hives get to flying. He says that he has hives in the cellar which have drones in sight through the glass that is on one side, and wants to know if those drones will be good in the spring; and, if not, how he will get the early drones.

First, I wish to say that I doubt the wisdom of working for very early queens—that is, trying to rear queens before there are any flowers in bloom, or before the colonies become strong enough to have the hives nearly filled with bees and brood, and by that time his wintered-over drones will be dead. All my experience goes to prove that such queens, reared out of season, are of very poor value, so much so that we would better sacrifice somewhat as regards purity rather than have pure queens of poor quality. But if one is anxious to rear queens just as soon as it can possibly be done and have them reasonably good, then I find the following course the best of any I have been able to find:

Select the queen you wish for your drone-breeder in the fall, and give to her colony the bees from some moderately strong colony during the month of September, having killed the queen in this latter colony a week or so before uniting. See that there is a drone-comb in the center of this united colony, and that they have plenty of honey to carry them over the winter and give them a good start in early spring. As soon as out of winter quarters see that the hive is made as warm as possible, and give them a feed of about a half pint of warmed syrup every night in a feeder. For this purpose a division-board feeder is rather better than any other, for it can be brought right up to the cluster, and the warmed feed poured therein will enable the bees to take the feed no matter if the weather should be quite cool. And if you will take a few bees from some other colony and unite them with this one, by keeping them confined in a box for one or two days, feeding them all they wish for those two days, and then just at night let them run down from the top through a little hole in the covering to the hive, and unite with the drone colony, this will help much toward the early depositing of eggs in drone-cells.

As soon as you have capped drone-brood in this colony it will be time to commence to rear queens. But before beginning on this part I wish to say that you will need to keep up the feeding of the drone colony during every cold or rainy spell of weather, or at all times when the bees can not get a supply of nectar from the fields, otherwise you may find your drones all driven out or killed off some day, for very early drones are often given their "walking ticket" on short notice if any failure in the supply of a daily ration of stores occurs. I suppose this is because the bees know that drones are not needed at this early season of the year.

Being assured that your drone part is a success, select the very strongest colony you may have, and this colony should have its hive as nearly filled with bees and brood as possible. Having such colony look over the frames till you find the queen, when you will set the frame having her on in some box or empty hive while you are fitting in a sheet of queen-excluding metal near the center of the hive, having this sheet fit so close that it is impossible for any bees to get around it in any place; otherwise the queen may get in the side where you are rearing queen-cells and destroy them all.

Having the queen-excluder in place, put that part of the brood which is the youngest on one side and the older brood in the other, and then place the frame set out and having the queen on it in the other side. Now leave them for 24 hours, when you will take one of the frames out from the side having no queen and put it in some other hive for them to care for, if it has brood in it. If only honey it can be set away anywhere after getting the bees off it, which should be done in either case, as we wish all the bees in this queen-rearing hive possible.

Now prepare a stick of cell-cups from your best breeder,

as given in "Scientific Queen-Rearing," and place the same in the space left by taking the frame out, when the bees will go on and perfect them just the same as they would in a well-stocked two-story hive later on, according to my experience of later years. But I like the two-story plan the best when colonies become strong enough so that can be used, as it costs less work in rearing queens where one colony is used to do this work the whole season through, as is generally my custom.

As soon as the queen-cells are ripe prepare nuclei to receive them; or, if you wish to supersede your old queens with these cells, or with queens from them, kill the old queens from 36 to 48 hours before the cells will be ripe enough to remove from your breeding colony, which will be in 11 days if you have used very small larvæ, or 10 days if larvæ as old as 36 hours were used when the cells were started. It is better to make a colony or two up into nuclei if possible rather than keep all the colonies without a laying queen from 10 to 15 days while the queens from these cells are becoming laying mothers, as the rule is that the queen from the ripe cell will emerge in from 5 to 15 hours after the cell is given the colony, then it will be 7 to 9 days before she mates with the drone, and from 2 to 3 days more before she goes to laying. And during these 12 to 15 days from the time of the killing of the old queen till the queen from the given cell gets to laying, the old one, if not disturbed, would lay eggs enough (the same giving bees which would be on the stage of action in just the right time for the honey harvest) to make all the difference between a good crop of honey and a poor one.

By breaking up 2 or 3 colonies for nuclei the old queens can be allowed to lay right along till the young ones are laying, and then by the Simmins' plan of direct introduction, no time of the rest of the colonies is lost.

Of course you will know that the colony rearing cells will want to be fed liberally at all times that nectar is not coming in from the fields, for upon this "plenty of food" hangs all the difference between good and poor queens.

Onondaga Co., N. Y.

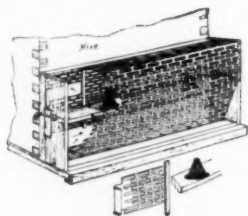


Improvement in Queen and Drone Traps

BY C. H. DIBBERN.

DURING the past 12 or 15 years I have experimented a great deal with various queen and drone traps of my own construction, for the purpose of hiving swarms. So well have I succeeded in improving the Alley trap that I feel that bee-keepers generally ought to have the benefit of my invention.

Now in pointing out my improvements, I do not wish to run down any existing traps, as, no doubt, many are suc-



ceeding fairly well with them. I have often wondered why more bee-keeping farmers, clerks and ministers who can give only a very small part of their time to the bees, were not using traps to manage swarming. Perhaps the fact that they were patented, and the cost had something to do with it. But, as a matter of fact, they were invented to catch drones, and it was only incidentally found that swarming could also be controlled, that they were used for that purpose.

Some of the improvements I claim for my trap are as follows:

First, it is far better ventilated, and will not cause the bees to fill the trap full of bees and "lay out," unless they would without any trap. This is done by making them larger, using more zinc, and not having the bottom piece come so very close to the hive-entrance.

Second, having the tube-holes in the middle strip within $\frac{1}{4}$ inch of the front zinc, with the lower side beveled off so as to leave no square edge between the zinc and the tube-holes for the queen to follow, preventing her from getting readily into the trap part.

Third, the upper part of the trap is made entirely of

perforated zinc except the ends, thus making it very easy to see the queen when trapped.

Fourth, the sliding door in the rear zinc, enabling one to release the queen without removing the trap from the hive. This is a decided improvement over a "gimlet hole" through one end of the middle strip, for when the swarm is entering the new hive, and you wish to release the queen, she is trying to get through the lower rows of perforations in the rear zinc.

Fifth, the rear zinc extends about an inch below the strip containing the tubes, which is to prevent the bees from "boiling over" when rushing from the hive in swarming; thus obviating the danger of getting the queen in behind the trap.

Sixth, the trap is provided with right and left wire-hooks and small screw-eyes to fasten it firmly to the hive, preventing it from tipping forward if the alighting-board is inclined forward, or working away by wind or bees, as it is liable to do if not fastened.

Sixth, the traps are nicely made, and painted white; this makes them look neat, last longer, and enables one to see all parts in the trap.

In a future article I will try to describe how I use the trap in an apiary of 150 colonies, as well as a general system of management. I believe there are many people that would find bee-keeping easy and profitable with this trap.



Convention Proceedings

Report of the Michigan State Convention

BY E. B. TYRRELL, SEC.

(Continued from page 231.)

HOW MANY COLONIES IN ONE PLACE?

"How many colonies can be profitably kept in one locality?"

E. D. Townsend thinks 80 or 90 colonies.

Mr. Kirkpatrick has had 160 in one place, and did not think the locality overstocked. He averaged about the same with 160 as with 60.

O. H. Townsend has 225 in one place, and thinks some years 400 colonies would not overstock a locality. With 225 colonies in one place, he did not find a bee 2 miles from home during clover bloom.

Mr. Kirkpatrick did not find a bee $\frac{3}{4}$ mile from home during raspberry bloom, and 225 colonies were in one place.

Mr. Root reported keeping 500 colonies in one place, but thought the place overstocked.

Mr. Manley says in his locality there were 585 colonies in a distance of 4 miles, and he did not consider the locality overstocked during a clover flow.

Mr. Bingham says bees gather honey freely only about two hours during a day, hence he does not believe a locality can be overstocked during a good honey-flow.

Mr. Cady says localities vary in that respect.

On motion the Secretary was voted \$10 for his services during the past two years.

On motion the Secretary's and Treasurer's offices were united.

The election of officers was then held with the following result: President, W. Z. Hutchinson; Vice-President, Geo. E. Hilton; and Secretary-Treasurer, E. B. Tyrrell, of Davison.

PRODUCING EXTRACTED HONEY.

"In producing extracted honey how much should be sealed before extracting? How do you uncapp?"

Mr. Huff extracts after the honey harvest, whether capped or not.

Mr. Kirkpatrick thinks four-fifths should be capped. He is not so particular at the end of the season.

E. D. Townsend extracts 10 days to 2 weeks after the season whether sealed or not, but prefers the sealed. He uses $1\frac{1}{4}$ -inch spacing, and uncaps very deep.

Mr. Manley uses two tubs for an uncapping-can, one tub being cut down half way, then a screen bottom is put on the shallow tub. Now he slips the shallow tub into the deep one, and can uncapp one-half day in this tub. He then

empties the cappings in a larger tank with screen bottom, and leaves them to drain one week.

O. H. Townsend does not extract clover honey until the beginning of the basswood flow. Then he stores the honey in a warm room for two weeks, and all unsealed honey will then be ripened. Then he extracts.

Mr. Bleach extracts at the end of each honey-flow.

The pamphlet discussion was then taken up, with the result that it was decided to get out a much larger edition and try to send one to each grocer in Michigan; also to advertise in a good grocery paper. Some copies will be sent to each member and one to each honey-dealer. It was also decided to insert the names of all members whether they had honey for sale or not. An edition of 5000 was advocated.

CANNING NEW EXTRACTED HONEY.

"Do you think that extracted honey should be canned up air-tight before the natural heat is out?"

O. H. Townsend had no experience in that, but should prefer to let it stand before canning.

Mr. Beecham stores in tanks, then draws clear honey from the bottom.

EXCHANGING SUPERS.

"Is there any advantage in changing supers from one hive to another to secure more rapid storing and completion of sections?"

Pres. Hutchinson thinks there is in some cases.

Leonard Griggs says it pays any bee-keeper to manage all possible ways to get bees to enter supers. He changes supers, also uses bait-sections.

Mr. Aspinwall doesn't want to go to that trouble. He said his hives don't need it.

Pres. Hutchinson advocates moving bees and all when changing supers.

Mr. Beecham places one section of drawn comb in each corner of the super.

Mr. Aspinwall thinks it better to put drawn comb in the center.

Mr. Manley puts the drawn comb in the center for bait-sections, but to get unfinished sections filled he would put them at the outside during the flow. He advocates running for extracted honey at both ends of the flow, so as to get the bees started in supers quicker, and also to have no unfinished sections.

Mr. York then being ready to announce his decision of the winners of prizes, they were given as follows:

Best 10 pounds of extracted honey—1st, W. E. Forbes; 2d, W. D. Soper; 3d, C. A. Huff.

Best 10 pounds of comb honey—1st, Oscar Smith; 2d, J. W. Flleman.

Best 10 pounds of comb honey produced in Danzenbaker hive—1st, W. E. Forbes.

CLEANING SECTIONS—PROPOLIS.

"Who has tried sandpaper rolls for cleaning propolis?"

Mr. Aspinwall says it is not satisfactory as it fills up too much.

"Is there any use to which I can put the propolis scraped from the hives?"

Mr. Aspinwall said it has the best flux for soldering lead pipes one can get.

O. H. Townsend said, to separate propolis from the wax, put all in water and the propolis will sink while the wax floats.

HIVE BOTTOM-BOARDS.

Mr. Soper asked for a talk on bottom-boards, and the following discussion was brought out:

Mr. Beecham prefers a removable reversible bottom with $\frac{3}{8}$ -inch entrance.

Mr. Soper asked if the members practice reversing the bottom-boards.

Mr. Beecham thinks reversible bottoms preferable.

Mr. Woodman prefers bottoms with $\frac{3}{8}$ -inch entrance.

Mr. Griggs prefers $\frac{3}{8}$ -inch for summer and winter, and $\frac{1}{4}$ -inch for spring and fall. He likes a hinged bottom-board.

Mr. Soper believes bees do as well with a small hive-entrance. He has had good results with an entrance $\frac{3}{8}$ x3 inches.

Mr. Griggs says his bees did well with small entrance until warmer weather.

Mr. Manley wants a cheap bottom-board, and reported a colony in a 12-frame hive with an entrance $\frac{1}{4}$ x4 inches giving 130 pounds of extracted honey, and the bees did not hang out. He believes in plenty of surplus-room.

Mr. Beecham believes bees can be given too much sur-

plus-room. He thinks no colony needs more than three half-stories at one time for extracted honey.

Mr. Cady reports favorably on bottom-boards and covers made of cement.

On motion the ladies were extended a cordial invitation to attend and become members of the Association and to compete for any prizes offered.

The question was asked if we could dispense with glass in shipping-cases, but the majority thought not.

SIZE AND SHAPE OF SECTIONS.

"What is the best size and shape for sections?"

Messrs. Aspinwall and Beecham use $4\frac{1}{4}$ -inch square, plain.

Mr. Aspinwall thinks that narrow sections take too much foundation, and are too thin and light to handle; also too many sections for the amount of honey. He wants as little foundation used as possible, and predicts that in 10 years more there will be more square than tall sections in use.

Mr. Forbes has used $4\frac{1}{4}$ x $4\frac{1}{4}$ sections for 20 years, but prefers the tall to the square ones. He uses full sheets of foundation with bottom starters.

Mr. Manley found the honey not as well attached in tall as in square sections.

Mr. Kirkpatrick prefers the tall sections, and uses full sheets of foundation.

PUTTING ON EXTRA SUPERS.

"Should the empty super be put under or on top of the full one?"

Mr. Manley puts the second super on top, and believes it the better way.

Mr. Short puts the second super on top.

Mr. Aspinwall tried putting the second super on top with poor results. He said the percentage of swarming will be greater when the super is put on top.

Mr. Hilton advises putting the empty super under the full ones.

CLOSED-END FRAMES.

"Is there any advantage in closed-end frames over open-end ones?"

Mr. Aspinwall thinks there is, and Mr. Bingham said there is a great advantage. He then gave a clear description of his hive, which he claims has the original closed-end frames, and said he uses closed-end frames exclusively. He advocated a frame $1\frac{1}{2}$ inches wide, and shorter than the regular Langstroth to prevent sagging. He also explained the uses of his smoker and honey-knife.

MOVING BEES—FREIGHT RATES ON HONEY.

"When is the best time to move bees?"

E. D. Townsend said during apple-bloom.

Mr. Forbes brought up an objection to the handle on the 60-pound cans, saying it often pulled off. He also spoke on the freight rates on extracted honey being higher than on syrup.

A motion was carried that Mr. Hilton be asked to see what can be done to secure a better classification on honey.

A few more questions were discussed, but the Secretary being busy with newspaper reporters, did not get them recorded.

The convention adjourned to meet at the call of the Executive Committee. E. B. TYRRELL, Sec.



Our Sister
Bee-Keepers

Conducted by EMMA M. WILSON, Marengo, Ill.

Loss of Bees—Queenless Colony

DEAR MISS WILSON:—1. I visited my apiary of 35 colonies to-day, and found 3 colonies dead and several more in a hopeless condition. Do you think the intensely cold weather which we have had for the past 6 weeks, could be the sole cause of the loss?

2. It was not from lack of stores, for one of the hives (I don't use any but the 8-frame Langstroth) had all the frames full of sealed honey and pollen, with the exception

of the 2 they had clustered between where the honey was partly consumed.

Was it a queenless colony? When I scraped up all the dead bees in it there was not enough to fill a pint cup. I found several queen-cells started. There was no disease, for everything smelled as sweet as new, and it had less bees in it with all that honey than either of the other 2, and all 3 hives were perfectly dry. I took special care in packing them for winter the latter part of September.

I had been in very poor health during the summer, so did not take the pains to examine them to see if each colony had its queen, feeling satisfied that they did, as they seemed to be doing all right. The bees have always been wintered on the summer stands, and with very little loss.

There was no sign of moths. I am puzzled to know why all that honey is in that hive. I could scarcely lift it, and instead of clustering in the center of the frames under the Hill's device, they clustered between 2 of the outside frames.

MRS. MARY A. RAY.

Adams Co., Ohio, Feb. 22.

1. Not necessarily; and yet it might be; not so much the intense cold as the long continued cold.

2. Almost certainly that one colony was queenless. The starting of queen-cells is one evidence, provided there was anything in them. The mere presence of cups started with nothing in them is no indication of queenlessness, for these may be found in any hive. The case was probably something like this: It was a strong colony, and by some means became queenless some time before the close of the honey harvest. Other colonies were busy storing in supers, while this one was doing a large part of its storing in the brood-chamber, filling up the brood-combs with honey as fast as the young bees emerged from them. In this way you will see that a strong queenless colony is the very one that should be heaviest in stores; for other colonies could not fill the brood-combs so long as brood was in them, and this one had no brood to prevent the honey going into the brood-chamber.

Bees Gathering Pollen—Wintered Well

Our bees were taken out of the cellar March 27, and were bringing in pollen shortly after being put out. They seem to have wintered well, having been in the cellar four months. To-day it was too windy for them to fly at all. Soft maple is in full bloom.

(MISS) MARY THEILMANN.

Wabasha Co., Minn., March 29.

Moving Bees a Short Distance

I have about 100 colonies which are on a couple of village lots, and which I wish to move outside the corporation (a distance of about five or six blocks) in April or May. How can I move them at that time of the year so the bees will stay in their new location?

My bees have wintered very nicely, and most of the colonies appear quite strong, but I suppose there will be some loss. I notice the mice have been very bad in some hives.

I trust you have been very fortunate in wintering yours, and wish you "good luck."

MATHILDE CANDLER.

Grant Co., Wis., March 1.

In April or May the bees will already have made many flights, and without special precaution, when moved so short a distance, a large number will return to the old stand. If you will move them two or three miles away, and then return them to the new place after two or three weeks, they will be likely to stay put. That's very troublesome, and you would probably rather lose more bees and have less trouble. Shut them up in their hives for two or three weeks, and move them to the new place before liberating them. But some of them would smother, and many bees worry themselves to death. Well, you can compromise. Shut them in their hives in the evening, or any time when all are in the hives. If the weather should be cool enough not to fear smothering, they might remain thus imprisoned two or more days. More likely it will be so warm that you will feel you must move them the next forenoon. No need to be so very careful in moving them gently; fully as well to knock them about a bit. As fast as you move them away to lean up the old ground, and don't leave any stands or empty hives standing about. The object is to have the old

ground look as little like home as possible, so that if any bees should return they will not feel like staying.

After all are moved you are ready to open entrances. Go to a hive and smoke and pound upon it till the bees are thoroughly frightened and roaring loud and strong. Less pounding will do if they are already roaring before you touch the hive. When you think they are sufficiently excited open the entrance, setting before it a board so as to prevent the bees from shooting out in a straight line. After all are opened see if you find many bees at the old place that act as if they had a notion of staying there. If you do, it may be well to set for them a hive filled with empty combs. Then when flight has ceased in the evening, distribute these bees in the new apiary where you think they will do the most good, perhaps shaking them down in front of entrances. If they come back next day repeat the process.



Mr. Hasty's Afterthoughts

The "Old Reliable" seen through New and Unreliable Glasses.
By E. E. HASTY, Sta. B Rural, Toledo, Ohio.

SHORT HONEY-DEARTH A BLESSING.

Mr. Morley Pettit may be right that a short period of severe dearth in the midst of the season is often a blessing, in that the drones are killed off and swarm-fever stops. How nice it would be to have bees on a barge and tow them to barren regions for a few days, and then tow them back.

Imaginable that two smokers running in a room that is not altogether bee-tight might help some in keeping bees out—but, murderation! What sort of beings inhabit Mr. P.'s locality, that they can consent to work in a choking, glimmering gloom so suggestive of bad regions? Page 119.

GRANULATED HONEY—AN "END-STINGER."

To teach customers that the natural condition of honey is granulated—I'm afraid that would be stretching the truth a little. With the honey in the comb, and the comb in the hive, and the hive in the best of condition, granulation is the exceptional and not the usual state. Also it is a state which the bees themselves manifestly don't like, in that they very generally throw the granules away.

For a stinger at the last end, that "make good use of your money when you get it," is just the thing, Mr. Pettit. The dull and ordinary essayist would surely have left that off as not strictly bee-ological. There is such a thing as sticking too close to the text when the pews sadly need some "general applications." Page 119.

WAX AND RELIQUEFIED HONEY.

I should want Mr. Armstrong to wipe his specs and examine his facts once more. Don't believe there is any wax in the foam that rises out of the interior of granulated honey when it is reliquified. Wax all rises while the honey is at rest previous to granulation. However, propolis usually contains a small percent of wax. It is imaginable that a can of honey might have some propolis settled to the bottom that would yield a trifle of wax when subjected to heat. Propolis sinks in water—can't say that I ever saw it sink in ripe honey. Page 119.

WORKING UP A HONEY MARKET.

It's a wise suspicion of Dr. Emmons that his excellent home market for honey came largely as the result of not trying to make a market—giving away all his surplus at first, and getting to sell only as his crops increased, and even then with a sort of reluctance. Convinced the flies that he was not a spider. Underneath the diligent cultivation of the market (which the papers so properly tell us about) the flies oft imagine that they hear the traditional, "Will you walk into my parlor?" And they whisper to themselves, "That spider will not catch me." Page 125.

FEEDING AN OBSERVATION COLONY.

Allen Latham's suggestions about feeding bees in an observation hive are good; but I think we need something decidedly better—some sort of feeding-chamber right adjacent to the back end of the frame, where robbing-bees could not get it short of first fighting the colony. It would increase the cost of the hive a trifle; but it could be made more convenient than setting a saucer and tumbler on the window-sill. Page 126.

"BATHOS" INSTEAD OF "PATHOS."

In my second paragraph on page 136, read bathos in place of "pathos."

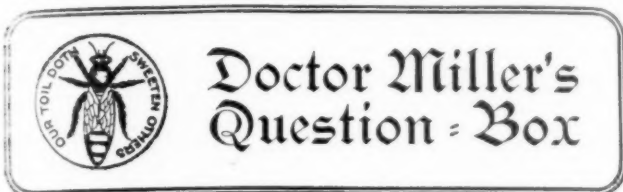
SOLIDIFYING OF LIQUID SUGAR AND HONEY.

As to the conundrum on page 131, about the solidifying of liquid sugar and liquid honey, I should say the former is sharp and hard, with some exceptions, while the latter is soft and cloud-like, with some exceptions. Not very satisfying from the logician's point of

low; but when the facts are that way what else can you say about it? The candy maker goes to the length of his art to make sugar soft. The bee-student, experimentally inclined, tries zealously to show a sample of honey sharp, hard, and dry like sugar.

PROPOLIS SCRAPING AND WIDE FRAMES.

Mr. Doolittle evidently has a location not so bad for propolis as some of us have. I, too, still use wide frames and tin separators, but there's quite a bit of scraping to do notwithstanding. But say, comrade, even granting that scraping propolis is not an ideal, Garden-of-Eden pastime, between that and *fishing*—I'd scrape. Page 134.



Send Questions either to the office of the American Bee Journal, or to Dr. C. C. MILLER, Marengo, Ill.
 Dr. Miller does not answer Questions by mail.

Depth of Langstroth Hive

On page 184, you say the depth of a Langstroth frame is $10\frac{1}{2}$ inches. Ours are $9\frac{1}{2}$. I use what I suppose is the standard Langstroth frame $9\frac{1}{2}$ inches deep, so I do not know where you would put the extra one inch in depth of hive. Please enlighten us.

TEXAS.

ANSWER.—Of course the depth should be $9\frac{1}{2}$. Now what punishment do you think severe enough for a printer that would make such a mistake as that? The trouble, however, is that I'm pretty sure the printer is entirely innocent and I'm the culprit. I don't understand how I could have written it $10\frac{1}{2}$, unless it be a case of total depravity. Please accept my hearty thanks for the correction.

Bees and Hens in the Same Yard—Moving Bees

1. How would it do to place about 50 hens and 30 colonies of bees in a yard 150 feet square.
2. Would many bees be lost by striking the fence-wires on windy days?
3. Could bees that are packed with a burlap cushion of shavings be safely moved a distance of 4 miles by closing the hive-entrance? Would they get air enough through the cushion?

NEW YORK.

- ANSWERS.—1. It would probably do all right.
 2. If the wires were a foot or so apart so that the bees would be in the habit of flying between them, a very few might be killed; but if the wires were much closer together the bees would always fly over and none would be killed.
 3. Don't risk it. Close the entrances with wire cloth.

Getting Swarms to Enter Empty Hives

There are swarms issuing from the yards of bee-keepers all around me, which they do not take any pains to hive, as they have all they care for. I have seen swarms hanging on the limbs of trees for a day or two, and have set hives out to catch them, but get very few.

Have you any suggestions how to draw them to a hive set out in the woods? This means a great deal to me.

MICHIGAN.

ANSWER.—I don't know anything more that to place a hive where it is easily found by a swarm looking for a home, the inside of the hive being acceptable in every way. Probably nothing, in this latter respect, will be better than to have the hive filled, or partly filled, with clean, empty combs.

Colonies Affected with Diarrhea

Last fall I had 50 colonies of black and hybrid bees on the summer stands with no protection except what a thicket on the west and north afforded. During the very cold weather of January and February the snow kindly enveloped them, and when the mild days of March came, and I could examine their home, I found one colony dead, under circumstances which, coupled with subsequent events, led me to believe some disease had appeared among them. It is this belief that prompts me to refer the circumstances and conditions to you for your opinion.

Last summer this hive was glued and waxed with a black, tarry paste-like propolis that did not smell just right, but in every other way the bees seemed healthy and all right. They did not work in the super as freely as some others, but went into winter with ample stores. I did not, at the time, notice any other colony thus affected, but upon continuing my search, in March, I found another dead colony which showed this same dark propolis. In about a week another, similarly conditioned, "played out," and the next day I discovered the whole yard engaged in robbing a fourth. I covered this up with carpets and straw to stop the robbing, and upon examination

later I found it affected the same as one, two and three. On March 15, I found a fifth one dead with these appearances existing.

In no hive did I find any brood except in the fifth. There the brood seemed perfectly healthy, and just ready to emerge from the cell. Not all that showed black propolis died, but all that died were of this class. The offensive odor, noticeable during the hot weather last summer, was not discernible this spring, but there were patches of pollen that seemed to have soured, and the cells containing it were broken down and presented a very unhealthy appearance. All these colonies left plenty of stores, and the cells in the brood-nest were in such good condition, and so clean, as to give no evidence of any "brood disease."

I have tried to be brief in this history of perhaps an imaginary trouble. Although it may not seem to you very brief, I should like to know if you or any reader can tell me if it is a disease, and what I can do in the premises to arrest or eradicate it.

MISSOURI.

ANSWER.—I've read your letter through twice with much care, and am a little puzzled as to reply. The appearance of your letter gives me the impression of a man of intelligence, but I suspect that you have not had many years' experience with bees, and if you will promise to take it good-naturedly I'll assume that to be the case, and answer accordingly. The "black, tarry, paste-like propolis" that did not smell just right was not propolis at all, but the excrement of the bees resulting from diarrhea. To be sure, you mention it as being first noticed last summer, and diarrhea does not usually occur in summer, but that may have been from the previous winter. This winter and spring a number of colonies were affected with diarrhea, smearing the combs and particularly the top-bars of the frames, and probably spotting the fronts of the hives, the worst cases dying from the disease. The fifth case was the only one with brood merely because it was later in the season, when brood-rearing had begun. The remedy for diarrhea is a cleansing flight. Wholesome food and proper protection and ventilation are preventives. Consult your book on the subject of diarrhea.

Drone-Brood and Worker-Brood

How can I tell drone-brood from worker-brood? WISCONSIN.

ANSWER.—Lay a rule over the comb containing the brood; if it measures 4 cells to the inch, you may know it's drone-brood; if 5 to the inch, it's worker-brood. If the brood is sealed, the sealing of the worker-brood is flat, and that of the drone-brood raised or rounding. If you have a drone-laying queen, or laying workers, you will have drone-brood in worker-cells, and the sealing will be rounding like so many little marbles.

Honey Sent to Commission-Men

About a year and a half ago I shipped two barrels of honey to a honey commission firm at their request, they having informed me that they had a buyer for same. I paid 6 cents per pound here for 1080 pounds net. The firm said they could make a good profit for me on it at that price. Well, time rolled on, as it has a habit of doing, and I received no returns from the honey.

About 6 months ago the firm wrote me saying that they would put the honey in cans, as they could not sell it in barrels. Later they wrote that it was all sold but 3 or 4 cases. Then I wrote them not to sell at a loss, and to send me the money for that already sold. They replied with a draft in full for \$35.49, 969 pounds at $4\frac{1}{2}$ cents, less freight and commission. No account of cans, or labor of transferring, and 111 pounds short. I could have sold it in Chicago at 6 cents, and would have been glad to pay the freight charges, if only I had been informed. I do not know what right they had to sacrifice my property for the little \$3.60 commission they charged for selling, after I had told them not to sell at a loss.

What I wish to know is, Has a shipper any rights in his property after it goes into the hands of a commission-man?

IOWA.

ANSWER.—I'm not familiar with the laws of the different States, but I feel safe in saying that when honey is sent to be sold on commission it remains your property till it is sold to a customer, and is at no time the property of the commission-man. If you say he must not sell below a certain price, he has no right to do so, and in general you have the right to instruct him what he is to do, he, of course, receiving the proper remuneration for his services.

Various Races in One Yard—Best Workers—Honey in Sunflowers

1. Last Saturday was a very warm day, and I noticed the bees bringing in a white-looking stuff on their legs. What could it have been?
2. One of my neighbors told me that black or brown bees could not be kept in the same yard with Italians. Is that correct?
3. What kind of bees do you consider the best workers?
4. Is there any honey in sunflowers, and, if so, could the common black bees get it?

IOWA.

ANSWERS.—1. Probably early pollen; possibly sawdust.
 2. All the kinds of bees in the world might be kept in one yard. Possibly he meant you could not keep two kinds in one yard without their mixing, which is true; but it is also true that they mix when two miles or more apart.
 3. Very likely you will get nothing better than Italians, although for some purposes or localities some other may be better.
 4. Yes to both questions.

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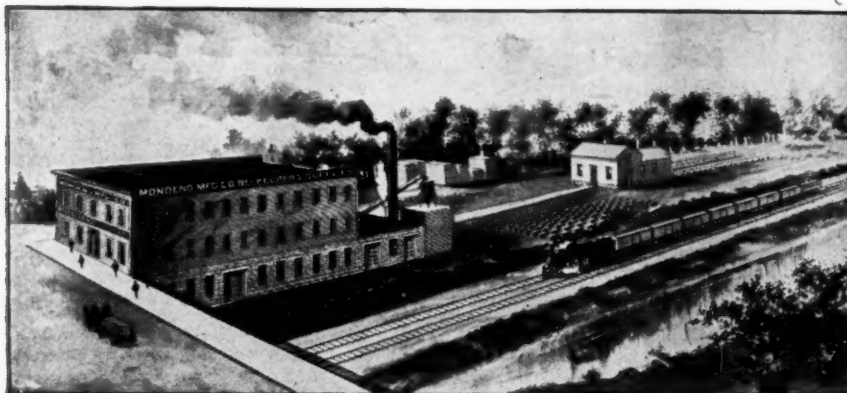
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Reports and Experiences

Temperature of Bee-Cellars

I have 82 colonies to begin the season with. It has been a very severe winter, and the temperature in my bee-cellar has been only 39 degrees all winter, while that of a neighbor's has been 45. We will note the difference in spring. Mine had 5 pounds more of honey each than his did, when put into winter quarters.

I am very much pleased with the American Bee Journal. It grows better every year.

F. A. METCALFE.

Ontario, Canada, March 7.

The Season in California

I have remarked several times upon the flattering prospects in California for the coming honey crop. In the 11 years that I have been here, although we have had 3 remarkably fruitful years, I think no season has given this early anything like the genuine promise that confronts us at this time. We have had most generous rains, in fact the best for over a decade. As I have stated frequently, 15 inches is our average. We have already gone much

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beyond this, and the chances are that the end is not yet.

Yesterday I took a ride into the canyons and there was a wealth of bloom that was surely most encouraging. I chanced to stop my horse beneath a live-oak tree, which was in full bloom, and the loud hum of the bees showed full well that they were making good use of their opportunity. This winter has not only been very wet, but it has been so mild that we are sure to have very early bloom. I have often called attention to the fact that in wet years our bloom is sure to be protracted, so the present year we are not only sure to have a great wealth of nectar-bearing flowers, but it is equally certain that they will hang on for a long time.

There is only one possible chance for a failure. If, at the time of the honey season we should have continuous cold winds, these might somewhat interfere with our success. It is hardly to be expected, however, that we

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can have continuous weather of this kind. An occasional day, or a few days, may come and lessen the crop, but that the entire season should be thus characterized is not to be presumed.

A. J. COOK.

Los Angeles Co., Calif., March 23.

Locations in Virginia and Maryland

Last fall I sold my bees and fixtures with the intention of locating in the South, hoping to do better where the summers are longer and winters less severe.

Would some bee-keeper in Virginia or Maryland let me know through the columns of the American Bee Journal if it is a good place for bees in those States, when the honey-flow comes in, and what the bees mostly work on? also, if there is any chance for Northern bee-keepers to locate in those States to start an apiary. An answer would be of great interest to many here.

JOHN H. OREN.

Barron Co., Wis., Feb. 6.

Loss of Bees by Smelter Smoke and Drouth—Great Yield from One Colony

The few colonies I have left from the wreck of 7 years' smelter smoke and 3 years' drouth have never done so well as they did in 1904. From the causes named, during the last 7 years, I have lost about 400 colonies of bees. In 1900 I had 97 colonies in one apiary, and in the spring of 1903 only 2 of them were left. These I increased to 4, and as there was a good honey-flow I piled supers filled with empty combs on top until 2 of them were 3 stories and 2 of them 4 stories high. I wintered them in that way, and they came through in good condition. There was a good honey-flow last season, and as the bees were located pretty much outside the range of the smelter smoke, they gave a good account of themselves, and I now have 14 colonies.

One of the colonies in the 4-story hives referred to came through the winter strong, and on May 10 it had 3 extracting-supers nearly full of brood, and a super of honey. I removed the queen with 2 supers of brood,

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Choice home-bred and imported stock. All queens reared in full colonies.

One untested queen..... \$1.10
One tested queen..... 1.65
One select tested queen... 2.20
One breeding queen..... 3.30
One comb nucleus (no queen)..... 1.80

Untested ready in May; all others ready now from last season's rearing.

Safe arrival guaranteed.

For prices on quantities and description of each grade of Queens, send for free price-list.

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30 or 40 colonies Italian Bees, in good shape, in L. hives (8 fr.) at \$3.50 per colony.

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left a super of hatching brood on the old stand, dividing the super of honey between them, and finished filling each super with foundation. May 21 both hives were full of bees and honey, the new one having built over 30 queen-cells. I then divided the bees, brood and honey of the new colony, and filled up with foundation, as before, again moving the old queen to furnish field-bees for the second new one. June 16 the old queen came out with a swarm. July 1 and 11 I made 2 more swarms, and as there was a big honey-flow they were all strong. I moved the old colony on July 1, but on July 11 I found it could not stand a second move. As there were 4 comb-honey supers on the May 10th swarm, I moved the May 21st swarm to furnish field-bees for the last new one. I now had 6 strong colonies, and run them to the best advantage with the following result:

I took off 617 pounds of extracted honey, which I sold at an average price of 7½ cents per pound, and 16 24-pound cases of comb honey which I sold at \$2.50 per case. I also left an extra super for wintering on each of the 6 colonies.

The honey score of the 6 colonies is as follows:

Extracted, June 30	60 pounds
" July 1	117 "
" July 11	50 "
" July 29	150 "
" Aug. 15	165 "
" Aug. 29	75 "
Comb, Aug. 15	2 cases
" Aug. 29	3 "
" Sept. 15	4 "
" Oct. 14	7 "

I am wintering them in 2-story hives, and I think there is honey enough in either story to carry them through. The bees seem to winter better in this way, with less spring dwindling, and they build up faster in the spring.

In taking off the honey I boxed up the full combs and hauled them home, and after extracting the honey from them I melted the

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Made of artificial stone. Practically indestructible, and giving entirely satisfactory results. Comb foundation made easily and quickly at less than half the cost of buying from the dealers. Price of Press, \$1.50—cash with order. Address,

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44At KNOXVILLE, TENN.

J. G. Goodner, of this State, writes me that he "prefers to pay \$25 for a Rietsche Press than do without it."—A. G.

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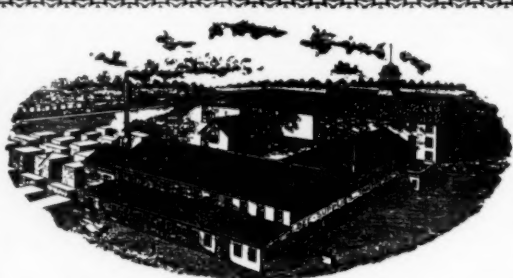
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YOU may hold a policy and BOND.

General and special agents wanted. Address,
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Prices on application.

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combs, getting about 30 pounds of wax. I put sheets of foundation between the partly-filled combs, and kept all queens supplied with full sheets of foundation for laying-room. I regard that particular colony as a wonder.

Our leather-colored bees are on top as honey-gatherers. I have not figured up the profit on those bees, but if the 6 colonies are alive the first of April I would not take \$50 for them.

With my 97 colonies in 1900 I thought I had things pat, but, like Paddy's flea, when he put his finger on it it was not there, and my bees vanished like the smoke that helped to destroy them. It now looks as if the beginning of the end of smelter smoke is in sight, but I will report later if the good news proves true.

Mr. Hasty said last spring that I had thrown up my hat for the 1000-pound mark, and he thought if some one would give figures instead of assertions it would be better. Now this figure has been reached in this State many times, but it must not be inferred that 1000 pounds of honey has been taken from one hive. It is always figured "spring count"—one colony and its increase during the season. **E. S. LOVEST.**

Salt Lake Co., Utah, Feb. 3.

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For Queens

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JOHN W. PHARR
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He will furnish at same prices as last year: Tested, \$1; Untested, 75c; 5 for \$3.25; 10 for \$6; 15 for \$8.25; 25 for \$12.50; 100 for \$45. He breeds Goldens, Carniolans and 3-Band Italians. Also 1, 2, and 3 frame Nuclei, and full colonies. Prices given on application. Pharr pays the freight, and guarantees satisfaction on all Queens. To do justice and judgment is more acceptable with the Lord than sacrifice. —(Prov. 3: 21.) 6A4f

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That nothing can alloy,
I arise to say that
(Excuse this shabby hat)

DOOLITTLE

Has worked so very hard
That he has got a "pard"
To help him with his bees,
And if you wish to please

yourself and us, send for
a circular giving particulars
regarding our fine
ITALIAN QUEENS.

Prices for Queens this
season will be as follows:

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Select Tested		
(1904 rearing) ..	2.50	
Select Breeding 5.00		
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Breeding	10.00	

Prices quoted by
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Honey and Beeswax

CHICAGO, April 7.—The market has cleaned
up quite well on comb honey. Choice white
comb is selling at 12@13c, and the off grades
are also moving freely at 9@10c. Extracted is
not sharing in this movement and prices are
weak at 6@7c for white and 5@6c for dark ac-
cording to flavor, body and package. Beeswax,
29@30c. R. A. BURNETT & CO.

NEW YORK, March 11.—There is no improve-
ment in the comb honey situation. The demand
is next to nothing; quotations nominal and no
doubt some of the stock will have to be carried
over. We quote fancy at 13c; No. 1 at from
11@12c, and dark at from 9@10c. Extracted is
in fair demand: White at from 6@6½c; light
amber at 5½c; Southern in barrels from 50@57c
per gallon, according to quality. Beeswax firm
at 29c. HILDRETH & SEIGLER.

BOSTON, March 9.—The demand for comb
honey still continues light with heavy stocks
on hand. Fancy white, 15@16c; No. 1, 14c. Ex-
tracted, 6@8c, according to quality.
BLAKE, SCOTT & LEE.

KANSAS CITY, March 31.—The honey situa-
tion does not improve. While there is a little
better movement the prices seem to be lower.
Fancy white brings \$2 a case; No. 1, \$1.75; am-
ber and lower grades from \$1.25 to \$1.50. Ex-
tracted, 4½@6c. Beeswax, 28c.
C. C. CLEMONS & CO.

CINCINNATI, O., April 7.—The large stock of
comb honey, yet offered with hardly any de-
mand, caused lower prices. I quote fancy water
white at 12c; other grades in proportion, lower.
Extracted is in the usual demand for this time
of the year; quote amber in barrels at 5½@5¾c;
in cans, ½c more; white clover, from 7@8c.
Beeswax, 28c. C. H. W. WEBER.

PHILADELPHIA, March 22.—As the season ad-
vances, the call for honey is decreasing, and
the market at the present time is dull. Some
few sales. We quote: Fancy white, 13@14c;
No. 1, 11@12c; amber, 11c. Extracted, white,
6½@7c; amber, 5½@6c. Beeswax, 28c.

We are producers of honey and do not handle
on commission. WM. A. SELSER.

ALBANY, N.Y., Feb. 8.—Honey market dull
this extreme cold weather, especially comb,
which candies or granulates and cracks easily.
We quote: Fancy white, 13@14c; No. 1, 12@13c;
mixed, 10@11c; buckwheat, 10@11c. Extracted,
better demand: Buckwheat, 6@6½c; white,
6@6½c. Buckwheat most in demand, as the
Jewish people will have no other. Beeswax,
30@32c. H. R. WRIGHT.

CINCINNATI, March 10.—There is little, if any,
improvement in the honey market here, since
our last quotation. We hope to render a more
encouraging report soon. We quote amber ex-
tracted honey in barrels and cans at 5½@6½c.
White clover at 7@8c. Fancy white comb at
12@13c. Beeswax, 28c.

THE FRED W. MUTH CO.

SAN FRANCISCO, March 29.—White comb, 1-lb.
sections, 11@12 cents; amber, 8@10c. Extracted,
white, 6@6½ cents; light amber, 4½@5½c; am-
ber, 3½@4½c; dark amber, 3@3½c. Beeswax,
good to choice, light, 29@30c; dark, 27@28c.

Stocks of amber grades are of fairly liberal
proportions for this advanced date in the sea-
son, and include some recent arrivals from the
Hawaiian Islands. Inquiry is slow and market
lacks firmness. Choice water-white honey is
in light supply.

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OTISVILLE, PA., Jan. 18, 1904.

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view for what he said of it. Those remarks in-
duced me to get mine. FRED FODNER.

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